REMARKS

Claims 1-4, 6-9, 11, 13-19, 21-23 are pending.

Claims 1-4, 6-9, 11, 13-19, 21-23 are rejected.

Claims 1-4 and 14-19 are objected to.

Claims 1, 2, 4, 6, and 21 have been amended.

Claim Amendments

Claims 1, 2, 4, 6, and 21 have been amended. Support for the amended claims can be found in the application as filed, for example, on page 10. No new matter has been added.

Claim Objections

The Examiner objected to claims 1-4 and 14-19. The Examiner indicated that claim 1 recites "classifying the application data in the transport protocol layer as IP based", on line 6. The Examiner argues that IP is layer 3 while transport layer is layer 4, and it is unclear how can a transport protocol layer be classified as IP based. See Office Action dated May 12, 2008 (Office Action), p. 2.

As recited in claim 1, it is the *application data* that is classified in the transport protocol layer, not the transport protocol layer itself. In other words, the transport protocol layer is not classified as IP based as the Examiner indicates. Thus, the Examiner's confusion on how a transport protocol layer can be classified as IP based is not relevant.

The specification describes how application data can be IP based or non-IP based. The Examiner is again referred to Figure. 2. The Examiner mistakenly identified numeral 36 as the transport layer. However, 36 includes the transport functions 36 while 30 is the transport layer 30 with various service access points (SAP) such as the AV SAP 422 and the IP SAP 428. See Application, p. 10, ll. 19-26, for example.

In addition, IP based or non-IP based application data can be encapsulated in the packet formed in the transport layer 30. "...for this example, the payload field contains the encapsulated AV, AV\C, IP or other application data." Application, p. 10, ll. 1-2. Accordingly, in one example, *application data* that is received by the transport layer 30 can be an IP based packet to be encapsulated in the transport layer 30. In another example, the *application data* that is received by the transport layer 30 can be AV application data that is not IP-based, which is

also to be encapsulated in the transport layer 30. As amended, claim 1 recites such encapsulation.

Thus, one skilled in the art would understand that in the transport layer 30, the data can be classified as IP or non-IP based. The Applicant respectfully requests that the Examiner withdraw the objection to claims 1-4 and 14-19.

Claim Rejections - 35 U.S.C. 103

Claims 1-4, 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over W. Richard Stevens, "UNIX Network Programming", 1990, (hereinafter Stevens) in view of Raphaeli et al (US 20030103521, hereinafter Raphaeli).

Claim 1 recites "classifying the application data in the transport protocol layer as internet protocol (IP) based or non-IP based according to the associated service access point after receiving the application data through the service access point."

With respect to claim 1, the Examiner argued that Figure 2 of the application illustrated the data classification is outside of the "transportation layer 36". See Office Action, p. 3. However, as described above, the Examiner is mistakenly identifying the transport functions 36 with the transport layer 30. In Figure 2, transport layer 30 clearly includes the classifiers 40.

The Examiner also argued that the OSI model does not include data classification in the transport layer functionality. First, the claims are not limited to only the OSI model. Second, assuming that the OSI model does not teach data classification in a transport layer is evidence that claim 1 one skilled in the art would not perform such classification in a transport layer.

The Examiner argues that "Applicant agrees that the data classification is outside of the transport layer, which is consistent with the Examiner's position." Office Action, p. 3, referring to the Amendment filed February 10, 2009. However, the Examiner is misinterpreting the Applicant's remarks. In particular, the Applicant was referring to Stevens, not to the application. That is, in Stevens, the choice between AF_INET and AF_UNIX, which the Examiner interpreted as classifying as IP or non-IP based, occurred *outside of the transport protocol layer*. In direct contrast, the classification is explicitly recited in claim 1 as occurring *in the transport protocol layer*.

Thus, the Examiner acknowledges that the references do not teach each and every element of claim 1. That is, the Examiner and the Applicant agree that Stevens, teaches

classifying as IP or non-IP based *outside of the transport protocol layer*, if it teaches such classification at all.

Moreover, Stevens addresses the interface to a protocol layer. It does not address the internal operation of the protocol layer. That is, the internal functions of a protocol layer are not described in Stevens. For example, there is no section of Stevens cited by the Examiner that describes how the address family parameter of a socket system call is used in the functions of the protocol layer, but only in the external reference through the socket system call.

Moreover, Raphaeli is silent on IP, instead describing a powerline MAC layer. Thus, it does not suggest using a classification as IP or non-IP in determining if a powerline MAC connection exists. The Examiner noted that Raphaeli was not used to teach IP; however, for completeness, the Applicant refers to Raphaeli to address all references used in the rejection.

Furthermore, although the Applicant believes that claim 1 is allowable over the cited references, claim 1 has bee amended to recite "if a connection exists for the application data, encapsulating the application data into a payload of transport messages." Although Raphaeli does mention encapsulation by attaching a header, neither Stevens nor Raphaeli describe encapsulation of application data for a connection that was determined in response to a classification of the data as IP or non-IP based. See Raphaeli, ¶97.

Accordingly, as described above, Stevens and Raphaeli do not teach each and every element of claim 1, and the Examiner is apparently relying on personal knowledge without authority. The Applicant respectfully requests that the Examiner withdraw the rejection of claims 1 and dependent claims 2-4, and 14-18.

Claims 6-7, 9 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrew S. Tanenbaum, "Computer Networks", Forth edition, 8/9/2002 (hereinafter Tanenbaum) in view of Stevens, further in view of Hogan et al. (US Patent 4,841,456, hereinafter Hogan).

Claim 6, as amended, recites "determining an order of rules associated with the classifier to apply to the data packet using a priority of each of the rules, where each rule includes the corresponding priority." That is, each rule includes the priority.

The Examiner noted that Tanenbaum did not teach the determination of the order of the rules. The Examiner cited Figure 6.7 of Stevens to teach the rules. However, Figure 6.7 is only a list associating various combinations of family, type, and protocol with an actual protocol. Nowhere is there a reference to a priority.

The Examiner referenced Hogan to teach the priority. However, Hogan, addresses rules that are conditions to take an action in a functional test procedure (FTP). See Hogan, col. 7, ll. 36-53. The rules are not rules for classifying a data packet. The Examiner notes that the rules of Hogan are "very general and applies to any set of rules." Office Action, p. 12. The Examiner only argued that the rules of Tanenbaum in view of Stevens would be applied as in Hogan to "more effectively and reasonably implement the rules." However, the example given by Hogan to determine order is using the number of parameters. See Hogan col. 8, ll. 29-31. That is, the rule with the most conditions is evaluated first.

In contrast, the "rules" in Figure 6.7 of Stevens as cited by the Examiner, each have the same number of parameters. Thus, even assuming that the entries are "rules", Hogan provides no indication as to an order of the rules.

Furthermore, Hogan determines order without using priorities within the rules. That is, as described above, Hogan merely counts the number of conditions to determine order. Thus, the individual rules in Hogan do not include a priority. In contrast, in claim 6, the order is determined using priorities included in the rules.

Accordingly Tanenbaum, Stevens, and Hogan do not teach each and every element of claim 6. The Applicant respectfully requests that the Examiner withdraw the rejection of claim 6 and dependent claims 7, 9, and 21-23.

Claim 22 recites that "for each rule associated with audio/visual application data, the rule includes only one classification parameter." That is, there is only one classification parameter, not multiple classification parameters.

The Examiner cited the IP address of a customer's house as one parameter. Office Action, p. 14. However, the Examiner fails to identify how the IP address is the *only* parameter. That is, if there is another parameter, such as a source address, TCP options, or the like, then there is not only one parameter.

Moreover, this characterization is in direct conflict with the Examiner's previous interpretation of a rule. As described above, the Examiner cited Figure 6.7 of Stevens to teach a rule. However, the entries in Figure 6.7 include multiple parameters, such as family, type, and protocol. Thus, the addition of the "only one parameter" of the IP address, as interpreted by the Examiner, results in *four* parameters, not only one parameter.

Accordingly Tanenbaum, Stevens, and Hogan do not teach each and every element of claim 22. The Applicant respectfully requests that the Examiner withdraw the rejection of claim 22 and dependent claim 23.

Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanenbaum in view Stevens and Hogan, further in view of Malkin (US 6272145 B1).
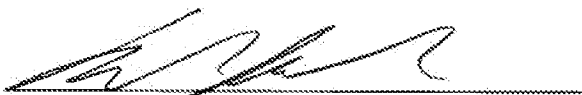
Claim 8 is dependent on claim 6. The addition of Malkin does not cure the deficiencies of Tanenbaum, Stevens, and Hogan described above with respect to claim 6. For example, Malkin does not address priorities within rules and their usage when applying the rules to data packets. Instead Malkin focuses on multilink communication. See Malkin, Abstract, and col. 1, ll. 6-18. Accordingly, Tanenbaum, Stevens, Hogan, and Malkin do not teach each and every element of claim 8. The Applicant respectfully requests that the Examiner withdraw the rejection of claim 8.

Claims 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of Hogan.

Claim 11 recites that each set of parameters includes a priority, and the sets of parameters are used in analyzing the data packet according to an order of the priorities of the sets of parameters." As described above, Stevens and Hogan do not teach such an order or priorities that are included within the sets of parameters. Accordingly, the Applicant respectfully requests that the Examiner withdraw the rejection of claim 11 and dependent claim 13.

For the foregoing reasons, reconsideration and allowance of the claims of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,
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